

1    **ABSTRACT**

2           A method of fabricating printed circuit boards integrating thick film resistor  
3 components and thin film circuit portions thereon is disclosed. This is a two-  
4 phase process, where the first phase is to create multiple thick film resistors, and  
5 the second phase is to create a thin film circuit portion on the substrate with thick  
6 film resistors in existence, involving the printing of the electrodes and the  
7 resistive coating for the thick film resistors, and the printing of a low temperature  
8 passivation layer over the resistors; and the thin film circuit is formed by titanium  
9 and copper layers over the substrate, and electroplating of interconnections to  
10 form copper plated circuit. The present fabrication process does not require  
11 drilling of holes nor electroplating of leads to the resistors, thus the whole process  
12 can be automated to a greater extent than with conventional techniques.